**Pre-ARC to investigate hepatitis C virus transmission, outcomes, and healthcare delivery among substance users**

ARC Directors:

Karen Jacobson, MD, MPH

Assistant Professor

Section of Infectious Diseases, Department of Medicine

Dowling 3N, Rm 3112

617-414-5213

[Karen.Jacobson@bmc.org](mailto:Karen.Jacobson@bmc.org)

Benjamin Linas, MD, MPH

Assistant Professor

Section of Infectious Diseases, Department of Medicine

Dowling 3N, Rm 3205

617-414-5238

[Benjamin.Linas@bmc.org](mailto:Benjamin.Linas@bmc.org)

Judith Tsui, MD, MPH

Assistant Professor

Section of General Internal Medicine, Department of Medicine

Crosstown Building

801 Massachusetts Ave, Rm 2078

617-414-6912

[judith.tsui@bmc.org](mailto:judith.tsui@bmc.org)

Mission statement:

To develop a multi-disciplinary, translational research center dedicated to the investigation of HCV transmission, disease burden, treatment patterns, and health outcomes in substance users in order to build an effective program for disease prevention and eradication in this complex patient population.

Proposed research areas and initial ideas:

1. HCV transmission
   1. Use phylogenetics to identify transmission networks and spatial patterns of infection
   2. Investigate non-IDU (sexual) transmission in substance users.
   3. Investigate “sero-sorting” behaviors and how misperceptions of sexual risk can lead to risky drug behaviors among discordant couples.
   4. Investigate the effects of substance use on HCV-specific immune responses and likelihood of clearance.
   5. Investigate substance use effects on vertical transmission.
2. HCV disease burden and outcomes
   1. Measure real world effectiveness of directly acting anti-viral therapies for HCV in substance users.
   2. Measure real-world resistance to new therapies in substance using populations and how adherence relates to resistance.
   3. Understand the burden of non-hepatic complications of HCV in substance users such a as depression, diminished quality of life, pain, chronic inflammation, increased risk for CVD, CKD, hematologic malignancies, auto-immune diseases (thyroid, etc.).
   4. Understand how HCV treatment impacts non-hepatic outcomes, and measure the effect that treatment/eradication has on substance abuse and other non-traditional/patient-centered outcomes.
3. HCV health care delivery
   1. Understand specific barriers to screening and treatment in substance users.
   2. Design and measure effectiveness of interventions to improve screening, linkage and adherence to treatment.
   3. Measure cost and cost-effectiveness of new medications and interventions in systems of delivery of care.
   4. Understand patient preferences for integrated substance abuse/HCV care.

Work plan and timeline:

March 2014 – first open meeting of interested investigators from around BMC and SOM.

April-May 2014 – continue with monthly meetings to identify leaders in each research area and define best ideas. The goal will be for each content area (transmission, burden and outcomes, and HCV care delivery) to schedule smaller group meetings between the monthly pre-arc meeting and to report back to the larger group with progress

June 2014 – HCV symposium at SOM

June – Sept 2014 – Working groups identify 3-5 best projects in their content area, complete with hypotheses and identified sources of funding.

Sept-November 2014 – drafting and finalizing ARC proposal for submission November, 2014

List of potential collaborators

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| --- | --- | --- | --- | --- |
| **Last name** | **First name** | **Rank** | **Departmental affiliation** | **E-mail** |
| Assoumou | Sabrina | Instructor | Medicine;  Infectious Diseases | [sabrina.assoumou@bmc.org](mailto:sabrina.assoumou@bmc.org) |
| Ballard (Dwan) | Jennifer | Assistant Prof | Obstetrics/Gynecology | [jennifer.dwan@bmc.org](mailto:jennifer.dwan@bmc.org) |
| Bica | Ioana | Assistant  Prof | Medicine;  Infectious Diseases | [ioana.bica@bmc.org](mailto:ioana.bica@bmc.org) |
| Brogly | Susan | Assistant Prof | School of Public Health;  Epidemiology | [sbrogly@bu.edu](mailto:sbrogly@bu.edu) |
| Cotton | Deborah | Professor | Medicine;  Infectious Diseases | [cottond@bu.edu](mailto:cottond@bu.edu) |
| Drainoni | Mari-Lynn | Associate  Prof | School of Public Health;  Health Policy & Management | [drainoni@bu.edu](mailto:drainoni@bu.edu) |
| Fagan | Maura | Assistant Prof | Medicine;  Infectious Diseases | [Maura.fagan@bmc.org](mailto:Maura.fagan@bmc.org) |
| Gordon | Craig | Assistant Prof | Medicine;  Nephrology | [craig.gordon@bmc.org](mailto:craig.gordon@bmc.org) |
| Hall | Jonathan | Director of Public Health Programs | Medicine;  Infectious Diseases | [jon.hall@bmc.org](mailto:jon.hall@bmc.org) |
| Horsburgh | C. Robert | Prof | School of Public Health;  Epidemiology | [rhorsbu@bu.edu](mailto:rhorsbu@bu.edu) |
| Magnani | Jared | Assistant Prof | Medicine;  Cardiovascular Medicine | [jmagnani@bu.edu](mailto:jmagnani@bu.edu) |
| Nunes | David | Prof | Medicine;  Gastroenterology | [David.Nunes@bmc.org](mailto:David.Nunes@bmc.org) |
| Pierre | Cassandra | Instructor | Medicine;  Infectious Diseases | [cassandra.pierre@bmc.org](mailto:cassandra.pierre@bmc.org) |
| Sagar | Manish | Associate Prof | Medicine;  Infectious Diseases | [Manish.Sagar@bmc.org](mailto:Manish.Sagar@bmc.org) |
| Samet | Jeffrey | Prof | Medicine;  General Internal Medicine | [jsamet@bu.edu](mailto:jsamet@bu.edu) |
| Thakarar | Kinna | Fellow | Medicine;  Infectious Diseases | [kinna.thakarar@bmc.org](mailto:kinna.thakarar@bmc.org) |